CLAIMS

1. Capsular tension ring that is adapted to be implanted in the equatorial region of a capsular sac after ablation of a cataract, comprises an open or closed annular body having sharp edges and an axial length from about 0.3 mm to about 0.6 mm, preferably about 0.5 mm, and is characterized in that the annular body, including the sharp edges, is made from rigid material over the majority of its circumference and includes at least one flexible material junction between two segments of the rigid material annular body.

2. Ring according to claim 1, characterized in that the axial width of the annular body is about 0.5 mm.

3. Ring according to claim 1, characterized in that the axial width of the annular body is from 0.45 mm to 0.55 mm.

4. Ring according to claim 1, characterized in that the annular body is closed and includes at least two diametrally opposed junctions.

5. Ring according to claim 3 or claim 4, characterized in that the circumferential extent of each of the junctions is from about 0.5% to about 6% of the circumference of the ring.

6. Ring according to claim 1 or claim 2, characterized in that it is open and the junction is from about 260° to about 320° from a first end.

7. Ring according to claim 6, characterized in that the open ring has a plurality of junctions regularly spaced over its circumference.

8. Ring according to claim 7, characterized in that the open ring has three junctions at substantially 120° to each other and four segments, two of which subtend an angle of about 60° and two of which subtend an angle of about 120°.

9. Ring according to any one of the preceding

claims, characterized in that the radial width of the junction(s) and the end(s) of the segment(s) adjacent said junction(s) is greater than the radial width of the segments of the annular body.

10. Ring according to any one of claims 5 to 9, characterized in that at least one of the ends of the annular body has a flexible material terminal portion that is re-entrant and has a rounded edge.

11. Ring according to any one of claims 7 to 10, characterized in that one of the ends includes an eyelet.

12. Ring according to any one of the preceding claims, characterized in that the radial width of the annular body outside the portions of the segment(s) adjacent the junction(s) is from 0.10 mm to 0.3 mm.

13. Ring according to any one of claims 4 and 8 to 12, characterized in that each junction subtends substantially the same angle.

14. Ring according to any one of the preceding claims, characterized in that the rigid material is selected from PMMA and acrylic and the flexible material is selected from HEMA, hydrophilic flexible acrylic and/or hydrophobic flexible acrylic.

15. Ring according to any one of claims 1 to 14, characterized in that there are covalent bonds between the flexible material and the rigid material of the annular body.

16. Ring according to any one of claims 1 to 14, characterized in that the flexible material consists in cross-linked statistical methacrylate copolymers of methylmethacrylate and hydroxyethylmethacrylate (MMA-HEMA) and the rigid material is based on PMMA copolymers.

17. Ring according to any one of the preceding claims, characterized in that the rigid material constitutes a chemical modification of the flexible material or vice-versa.

18. Ring according to any one of the preceding claims, characterized in that the flexible material constituting the junction(s) has a glass transition temperature of about 35°C.

19. Ring according to any one of the preceding claims, characterized in that the flexible material constituting the junction(s) is a shape memory material.

20. Assembly comprising a capsular tension ring according to any one of claims 2 to 19 and an intraocular implant of the type having a central optical portion and a peripheral haptic portion including one or more haptic elements extending radially from the optical portion, characterized in that the optical portion has a sharp peripheral edge on its posterior side.

21. Assembly according to claim 20, characterized in that the intraocular lens and the capsular tension ring are in one piece and the optical and haptic portions of the intraocular lens and the connection between the haptic portion and a first end of the ring are made of flexible material.

22. Assembly according to claim 21, characterized in that the haptic portion has a step facing the second end to receive it when the ring is compressed.

23. Method of fabricating an implantable capsular tension ring according to any one of the preceding claims, characterized in that the flexible material annular body is prepared and segments of the annular body are modified chemically to constitute rigid material segments, the junctions between which continue to be of flexible material.

24. Fabrication method according to claim 21, characterized in that one of the ends also continues to be of flexible material.

25. Method of fabricating an implantable capsular tension ring according to any one of claims 1 to 19,

characterized in that the rigid material annular body is prepared and one or more regions of the annular body is or are modified chemically to constitute one or more flexible material junctions between rigid material segments.

26. Fabrication method according to claim 23, characterized in that one of the chemically modified regions is one of the ends of the annular body.